

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-15 are presently active in this case. The present Amendment amends Claims 1, and 8-9, and adds new Claims 10-15 without introducing any new matter.

The January 29, 2008 Office Action rejected Claims 1, and 6-7 under 35 U.S.C. § 102(b) as anticipated by Hutchinson (U.S. Patent No. 4,836,670). Claims 2-3 and 8 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hutchinson in view of Harradine et al. (U.S. Patent No. 4,864,393, hereinafter “Harradine”). Claim 4 was rejected under 35 U.S.C. § 103(a) as unpatentable over Hutchinson in view of Harradine, and further in view of Nasserbakht et al. (U.S. Patent No. 6,072,443, hereinafter “Nasserbakht”). Claim 5 was rejected under 35 U.S.C. § 103(a) as unpatentable over Hutchinson in view of Nasserbakht. Claims 6-7 was rejected under 35 U.S.C. § 103(a) as unpatentable over Hutchinson in view of Mølgaard (U.S. Patent No. 6,747,690.)

The August 6, 2008 Advisory Action upheld the rejections of the January 29, 2008 Office Action, in response to a request for reconsideration filed on May 21, 2008.

In response, independent Claim 1 is amended to recite “a position of a location of an image displayed by said image display means so as to move the location of the image proportional to a movement of the eyes to follow the position of the eyes.” These features find non-limiting support in Applicant’s disclosure as originally filed, for example at least in the specification at p. 12, ll. 15-22. No new matter has been added. Independent Claims 8-9 have been amended to recite a similar feature, but directed to a method (Claim 8) and a device (Claim 9).

Moreover, new Claims 10-15 have been added. New Claims 10-12 depend upon independent Claims 1, and 8-9, respectively, and recite features related to a low-resolution

template. New Claims 13-15 depend upon new dependent Claims 10-12, respectively, and recite features related to a search area. The new claims also find non-limiting support in Applicant's disclosure as originally filed, for example in the specification at p. 13, ll. 13-24, and in corresponding Figs. 2 and 10. No new matter has been added.

In response to the rejection of Claim 9 under 35 U.S.C. § 102(b), in light of the amendments to this claim, Applicant respectfully requests reconsideration of this rejection and traverse the rejection, as discussed next.

Briefly summarizing, Applicant's Claim 9 is directed to an image display device. The image display device includes an image sensor, an image display, a detector configured to detect a position of the eyes of a face relative to the image display by image recognition from an image captured by said image sensor; and ***a processor configured to alter a position of a location of an image displayed by the image display*** so as to move the location of the image ***proportional to a movement of the eyes to follow the position of the eyes based on a detection result of said detector.***

As explained in Applicant's disclosure for example with respect to the specification at page 4, ll. 8-17 in a non-limiting example, the image display device can prevent image blurring of images that are displayed on an image display. Such blurring may occur when there are changes in the relative positional relationship between the image display device and the eyes of the user, for example when the user is looking at the image display device when traveling in a train. This can happen when the user's head is vibrating relative to the image display device that he is looking at, for example when watching a movie in a train. The user will then have the impression that the displayed image is blurred, and/or that there is a loss in image resolution. Please note that these comments based on Applicant's specification are for explanatory purposes only and are not intended to limit the scope of the claims in any fashion.

Turning now to the applied references, Hutchinson describes a system to detect eye movement with a camera 12 by using an special infrared illumination 16 that is coaxially arranged with the camera lens 14. (Hutchinson, Abstract, Fig. 1.) In particular, Hutchinson's system first detects the location of the pupil of the eye, to determine in which direction the user is looking. (Hutchinson, col. 4, ll. 3-6, col. 5, ll. 9-16, col. 7, ll. 45-47, Claim 1.) His system can be used to navigate through menus represented by icons 20 that is displayed on a computer display 18. (Hutchinson, col. 7, ll. 25-31, col. 7, ll. 24-54) Hutchinson thereby explains that to select icons 20 that are shown on a display 18, the user has to stare at the icons for a certain period of time, and the system then registers that the icon has been selected. (Id., see also col. 5, ll. 36-54.)

However, Hutchinson fails to teach a processor ***configured to alter a position of a location of an image displayed by the image display*** so as to move the location of the image ***proportional to a movement of the eyes to follow the position of the eyes based on a detection result of said detector***, as required by Applicant's Claim 9. First, Hutchinson does not alter a position of a location of a displayed image proportionally to eye movements, but merely registers where a user is looking to by calculating ***a position of the pupil comparing to the user's eye***. In addition, when the user stares at one of the icons that he wants to select, Hutchinson's system produces a beep noise that will confirm his selection. Nowhere in the cited passages in Hutchinson a position of an image that is displayed is altered so as to move a location of the image in a proportional relationship to eye movements, as required by Applicant's Claim 9.

Therefore, the cited passages of Hutchinson fails to teach every feature recited in Applicant's Claim 9, so that Claim 9 is believed to be patentably distinct over Hutchinson. Accordingly, Applicant respectfully traverses, and requests reconsideration of the rejection based on Hutchinson.

The remaining references used by the pending Office Action to form 35 U.S.C. § 103(a) rejections all fail to remedy the deficiencies of Hutchinson, even if we assume that such combination is proper, as next discussed.

Harradine is directed to a system that can calculate motion estimation vectors for television images that can be used for convert television format standards (PAL/NTSC) or for slow motion processors. (Harradine, Abstract, col. 1, ll. 20-25.) However, Harradine is entirely silent on the above features directed to the alteration of a position of a location of an image displayed by the image display so as to move the location of the image proportional to a movement of the eyes, as required by Applicants' Claim 9.

The reference Nasserbakht is directed to a adaptive ocular display system, where an image is directly projected onto the eye 26 of an user 10. (Nasserbakht, Abstract.) Nasserbakht recites that his "[o]ptical control 40 receives information from location and distance sensor 46 for modifying the image from image source 20 responsive to the location of the user relative to the ocular projection display 12." (Nasserbakht, col. 4, ll. 45-49, Fig. 5.) However, Nasserbakht clearly fails to teach to detect a position of the eyes of a face relative to the image display by image recognition, and also fails to teach the alteration of the position of an image on a screen so as to move the location of the image proportional to a movement of the eyes, as required by Claim 9.

The reference Molgaard also fails to remedy the deficiencies of Hutchinson, Harradine and/or Nasserbakht. Accordingly, even if we assume that such combinations are proper, all the references, Hutchinson, Harradine, Naserbakht, and Molgaard, fail to teach the Claim 9 feature "***a processor configured to alter a position of a location of an image displayed by the image display so as to move the location of the image proportional to a movement of the eyes to follow the position of the eyes based on a detection result of said***

detector." (Emphasis added.) Accordingly, Applicant respectfully traverses, and requests reconsideration of, this rejection based on these patents.

Independent Claims 1 and 8 recite features analogous to the features recited in independent Claim 9, but are directed to a device (Claim 1) and a method (Claim 8). Moreover, Claims 1 and 8 have been amended analogously to recite a similar feature. Accordingly, for the reasons stated above for the patentability of Claim 9, Applicant respectfully submits that the rejections of Claims 1 and 8, and all associated dependent claims, are also believed to be overcome in view of the arguments regarding independent Claim 9.

Consequently, in view of the present Amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-15 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

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